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Stephen Loomis

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EXAMINER

FLANDERS, ANDREW C

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/538,334	<b>Applicant(s)</b> LOOMIS, STEPHEN	
	<b>Examiner</b> ANDREW C. FLANDERS	<b>Art Unit</b> 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/4/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection necessitated by Applicant's amendments.

### ***Terminal Disclaimer***

The terminal disclaimer filed on 04 November 2008 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 10/688,423 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Information Disclosure Statement***

The information disclosure statement filed 04 November 2008 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because each Non Patent Literature entry does not have a date. Entries 1, 2, 8, 9, 10, 12 and 13 are listed with no corresponding dates.

It has been placed in the application file, but the information referred to without a date has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for

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purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1 – 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Berman (U.S. Patent 6,502,194) in view of Zainoulline (U.S. Patent Application Publication 2001/0030660).

Regarding **Claim 1**,

Berman discloses:

An apparatus for smoothly playing a pre-determined sequence of songs transmitted from a server over the internet (Fig. 1 element 100), the apparatus comprising:

a processor (Fig. 1 element 118),

a first memory (116) that stores at least one program used by said processor to control the playing of the sequence of songs (col. 6 lines 40 – 50),

wherein said at least one program causes said processor at least to:

as soon as a song starts to play, start to download, consecutively, a first small portion of a number of songs which are, in the predetermined sequence, subsequent to the song playing, said downloaded small portions being pre-cached in a pre-cache buffer which is an area in said memory (i.e. as the first song (Song 1) is being played, the playback unit continues to operate and, in background operations, continues to download the Song 1 data into the first buffer, and also downloads data for the other selected songs into the other buffers in an alternating fashion. Each song will be placed into a different sequential buffer; col. 12 lines 10 – 16; the buffers in the same memory and thus common to one another via the same memory;);

as soon as the user skips to a target song whose first small portion has been pre-cached, start to play the first small portion of said target song (i.e. this ensures that some portion of each selected song will be downloaded and available as soon as possible, thereby permitting the user to skip to one of the other selected songs after playback has begun; col. 12 lines 16 – 19);

at the same time start to download the rest of said target song so that as soon as the playing of the first small portion of said target song ends, start to play the rest of said target song which is being downloaded from the server over the internet (i.e. this ensures that some portion of each selected song will be downloaded and available as

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soon as possible, thereby permitting the user to skip to one of the other selected songs after playback has begun; col. 12 lines 16 – 19).

Berman does not explicitly disclose said program including computer-readable instructions for specifying number of songs to cache in advance and size of a pre-buffer cache. However, Berman recognizes that the size of the buffer and number of songs are relatively flexible. Berman clearly talks about typical sizes that can be used for buffer size and that the memory may be segregated into a "number" of sequential buffers in the Memory Buffering Control section. Berman further discusses that the functionality of the device remains the same regardless of the memory space addressed. It would have been obvious to provide the allocation and setup of this buffer in this system using software as claimed. The system disclosed by Berman is a processor/memory type system which is notoriously well known to operate and function using software. While not expressly indicated, it is likely that Berman performs these functions using software. Even if not, it would have been obvious for one of ordinary skill in the art to try given the notoriously well known components disclosed and their known interrelationships, (i.e. processor/software/memory) and the known benefits of a software system (ease of use, quick changes in operation, flexibility).

Berman does not explicitly disclose a second memory which is available to at least one program for operations, or the buffers are in an area in said second memory.

Zainouline discloses a preview device having a CPU, RAM memory which loads the player programs, and staging memory which stores the preview clips (page 3 paragraph 0031)

Modifying Zainouline to include this staging memory separate to the RAM storing the control programs in order to store the music data in Berman instead of Zainouline's only memory reads upon the limitation of a second memory which is available to said at least one program for operations and the buffers are in an area in said second memory.

One of ordinary skill in the art at the time of the invention would have been motivated to use Zainouline's preview device with Berman's Memory Buffering Control playback method in order to create a more pleasing online shopping experience. Rather than a user having to wait for each individual song to buffer as they skip between preview clips, the combination would allow a user to smoothly switch between media clips thereby saving the user time and avoiding annoying pauses between playback (Zainouline paragraph 26).

Regarding **Claims 6, 7, 16 and 17**, in addition to the elements stated above regarding claim 1, the combination further discloses:

(a) and (b) are met by the rejection of claim 1 above;

wherein the number of songs to pre-cache in advance and size of a pre-buffer can be specified (i.e. specification in advance can be met by the initial writing of the software program disclosed and made obvious above in claim 1.)

(c) as soon as the user skips from a song in the playing to a target song, checking whether a file for said target song exists in said buffer, wherein if the check result is yes, continuing on step (d); (d) playing the first small portion of said target song

(i.e. Berman further discloses checking to see if the track is in the buffer and if so beginning to stream track data from memory; Fig. 5 elements 506 and 512).

As stated above regarding claim 1, Berman discloses data in a given buffer is overwritten as it is processed and played. Thus, after the last segment of memory in a buffer for a song has been filled with a song data packet and that buffer is processed for listening, the next song data packet will be written to the first segment in that buffer (col. 12 lines 25 – 30). Therefore, as the system starts downloading the rest of the said target song, it is inherent that the data that has been in the buffer prior to the target song is overwritten (i.e. deleted) as the newer data is being processed and played. This reads upon the limitation of (f) deleting any pre-cached song prior to said target song in said pre-determined sequence. Elements (e) and (g) are met above regarding claim 1.

Regarding **Claims 2, 12 and 22**, in addition to the elements above regarding claim 1, the combination further discloses

wherein said first small portion is approximately the data required for playing the first ten seconds (in Berman in the preferred embodiment each data packet contains approximately ten seconds of compressed digital audio information; col. 11 lines 50 – 52).

Regarding **Claim 3, 13, and 23**, in addition to the elements above regarding claim 1, the combination further discloses:



Berman discloses three buffers in a playback memory in Figure 11. The playback unit memory may be segregated into a number of sequential buffers, with each buffer preferably containing one song (col. 11 lines 30 – 32) and the number of buffers is determined by the 2MB buffer size and the amount of memory that the playback unit microprocessor can access, so the number of buffers available will be variable (col. 11 lines 34 –38). Since microprocessor accessible memories of, for example, 256 MB, are well known at the time of the invention, Berman's disclosure comprehends any number of buffers up to at least 128.

Regarding **Claims 4, 14, and 24**, in addition to the elements stated above regarding claim 1, the combination further discloses:

Berman further discloses that the buffers correspond to the following musical selections (col. 11 lines 63 – 65) and that the buffers are sequential buffers (col. 11 line 31). Berman discloses that the buffers correspond to the following musical selections as well as hold the data of the following songs to be played in sequential order. Therefore it is inherent that the said number of songs is all songs subsequent to the song in playing.

Regarding **Claims 5, 15, and 25**, in addition to the elements stated above regarding claim 1, the combination further discloses:

wherein said buffer follows a first-in first-out algorithm and allows writing while reading (i.e. Berman further discloses The loop buffering operation progresses from left

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to right in Fig 12. Loop buffering is used to limit the size needed for each buffer. In particular, a buffer is not expected to have sufficient capacity to contain the entire data needed for one song. Rather data in a given buffer is overwritten as it is processed and played. Thus, after the last segment of memory in a buffer for a song has been filled with a song data packet and that buffer is processed for listening, the next song data packet will be written to the first segment in that buffer; col. 12 lines 22 – 30).

Regarding **Claims 8 and 18**, in addition to the elements stated above regarding claims 7 and 17, the combination further discloses:

(h) as soon as step (d) starts, continuing on step (a), wherein if one or more songs subsequent to said target song are already pre-cached, skipping said one or more songs and downloading the subsequent ones, executively, to make up said number.

Berman discloses that portions of each selected song will be downloaded as the first one begins to play (col. 11 lines 56 and 57), the number of buffers may be variable (col. 11 lines 37 and 38), this ensures that some portion of each selected song will be downloaded and available as soon as possible, thereby permitting the user to skip to one of the other selected songs after playback has begun (col.12 lines 16 – 19), and as the first song (Song 1) is being played, the playback unit continues to operate and, in background operations, continues to download the Song 1 data into the first buffer, and also downloads data for the other selected songs into the other buffers in an alternating fashion. Each song will be placed into a different sequential buffer. (col.12 lines 10 –

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16). It is inherent that as soon as the user skips ahead to another song, the subsequent songs will be downloaded into the buffer sequentially in order to fill the number of buffers as the system downloads the portions of the other songs not playing as shown above.

Regarding **Claims 9 and 19**, in addition to the elements stated above regarding claims 8 and 18, the combination further discloses:

(i) if no skip command is given by the user while said target song is playing, as soon as the playing of said target song ends, playing the next song immediately subsequent to said target song

Berman further discloses that if a user wants to hear Song1, Song2, and Song 3, the playback unit downloads a number of packets for Song1 into the first available buffer, Once a sizeable amount of compressed audio information is stored for that song, the playback unit begins to process the information and play the song (col.11 lines 66 and 67, col. 12 lines 1-4). It is inherent that if the user selects these three songs, starts playing Song1, and doesn't skip ahead that Song 2 will follow after Song1 has completed playing based on the functionality of the buffer.

Element (j) is met by the rejection of claim 7 above.

Regarding **Claims 10 and 20**, in addition to the elements stated above regarding claims 7 and 17, the combination further discloses:

(k) sending request to stop transmitting of said song in playing and start transmitting said target song and (n) playing said target song while being downloaded as soon as said buffer allows so

Berman discloses that As the first song (Song 1 is being played, the playback unit continues to operate and, in background operation, continues to download the Song 1 data into the first buffer, and also downloads data for the other selected songs in to the other buffers into an alternating fashion (col. 12 lines 10 – 14) and if a user wants to hear Song1, Song2, and Song 3, the playback unit downloads a number of packets for Song1 into the first available buffer, Once a sizeable amount of compressed audio information is stored for that song, the playback unit begins to process the information and play the song (col.11 lines 66 and 67, col. 12 lines 1-4). Therefore, if a user starts playing Song1 and instantly skips to Song2 there will be no information stored in the buffer for Song2 therefore it is inherent that the system will stop playing Song 1 and automatically download the information for Song2.

Elements (l) (deleting pre cached like (f) in another playback), (m) (downloading like (e) in another playback), and (o) (repeating the sequence as needed) are met by the rejection of claim 7 as stated above).

Regarding **Claims 11 and 21**, in addition to the elements stated above regarding claims 10 and 20, further use of the system allows for additional skips, pauses, plays etc and thus, element (p) is clearly comprehended above regarding claim 9 element (j), element (q) is clearly comprehended above regarding claim 9 element (i), element (r) is

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clearly comprehended above regarding claim 7 element (e), element (s) is clearly comprehended above regarding claim 8 element (h), and element (t) is clearly comprehended above regarding claim 7 element (g).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ANDREW C. FLANDERS** whose telephone number is (571)272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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